

Amendments to the Claims:

The text of all pending claims, (including withdrawn claims) is set forth below. Canceled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (canceled), (withdrawn), (new), (previously presented), or (not entered).

Applicants reserve the right to pursue any canceled claims at a later date.

The following listing of claims will replace all prior versions, and listings, of claims in the application:

12. (currently amended) An eddy current probe for electrical measurement methods, comprising:

a substrate with a resting surface and the resting surface comes to lie on a test piece;

two electrical components mounted on the substrate such that the probe with the substrate is flexible and the probe with the substrate ~~can adapt~~ adapts itself to a different radii of curvature of the test piece;

a backing with a ferritic and/or magnetic material that at least partly covers at least one electrical component and is formed elastically;

an exciter coil as a first electrical component; and

a signal coil as the second electrical component,

wherein the exciter coil encloses a coil section of the signal coil and the signal coil and the exciter winding lie in one plane or on a surface of the substrate.

13. (previously presented) The eddy current probe as claimed in claim 12, wherein the substrate is a flexible film.

14. (previously presented) The eddy current probe as claimed in claim 13, wherein the film is formed from polyimide.

15. (previously presented) The eddy current probe as claimed in claim 12, wherein the backing is formed by an elastic, sheet of a ferritic material.

16. (previously presented) The eddy current probe as claimed in claim 12, wherein the backing is formed by a permanently elastic casting compound filled with ferrite particles.

17. (previously presented) The eddy current probe as claimed in claim 12, wherein the probe has as an electrical component that is a coil and is arranged on the substrate in a planar manner.

18. (previously presented) The eddy current probe as claimed in claim 12, wherein the probe has a ferromagnetic signal amplification.

19. (previously presented) The eddy current probe as claimed in claim 12, wherein the probe is adaptable to radii of curvature of up to 50 mm.

20. (previously presented) The eddy current probe as claimed in claim 12, wherein the backing is a gas-filled material.

21. (previously presented) The eddy current probe as claimed in claim 12, wherein the exciter coil and the signal coil are arranged in one plane.

22. (previously presented) The eddy current probe as claimed in claim 12, wherein a region to be examined is covered by the probe.